

AMENDMENTS TO THE DRAWINGS

Please amend the drawings as follows. Please replace the drawing sheet containing FIG. 4A with the replacement drawing sheet in the attached appendix.

REMARKS

Prior to entry of this amendment, claims 1-21 are pending in the subject application. No amendments to the claims are presented by this Amendment.

Applicants note with appreciation the Examiner's acknowledgement of applicants' claim for foreign priority and receipt of a certified copy of the priority document.

Applicants further note with appreciation the Examiner's acceptance of the drawing figures filed on March 18, 2004.

A. Introduction

In the outstanding Office Action Made Final, the Examiner rejected claims 1, 11-16, and 21 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,183,042 to Harjunmaa et al. (hereinafter referred to as "the Harjunmaa et al. reference"); and objected to claims 2-10 and 17-20 as being dependent upon a rejected base claim.

Applicants respectfully traverse this rejection and this objection for at least the reasons set forth below.

B. Asserted Anticipation Rejection of Claims 1, 11-16, and 21

In the outstanding Office Action Made Final, the Examiner rejected claims 1, 11-16, and 21 under 35 U.S.C. § 102(b) as being anticipated by the Harjunmaa et al. reference.

The present invention pertains to a method of non-invasively measuring an amount of a blood component that utilizes, in part, establishing a statistical model to compare spectra and an actually-measured concentration of the blood component. The statistical model may then be used to estimate the concentration of the blood component.

Of the many embodiments of the present invention, claim 1 recites, in part, "establishing a statistical model using the first differential absorption spectrum and the actually measured concentrations," and "estimating the concentration of the blood component using a second

differential absorption spectrum obtained with respect to the body part based on the statistical model.” Independent claim 12 also contains recitations pertaining to establishing and using the statistical model. As noted throughout the specification, use of the statistical model allows more accurate estimations to be realized.

Distinctions of the present invention over the Harjunmaa et al. reference have been placed before the Examiner in the Amendment filed September 21, 2006. For brevity, this discussion is not repeated here.

The Harjunmaa et al. reference pertains to an electromagnetic method to measure constituents of human or animal tissue. At pages 4-5 of the Office Action made final, the Examiner asserts that the Harjunmaa et al. reference discloses a calibration model equivalent to the statistical model recited in independent claims 1 and 12 of the present invention. However, the calibration model of the Harjunmaa et al. reference fails to disclose statistical analysis.

In his Response to Arguments at pages 4 and 5 of the Office Action, the Examiner asserts that the Harjunmaa reference discloses establishing a statistical model at column 5, lines 6-10, and using the statistical model to estimate the concentration of a body component at column 5 lines 6-15.

However, the Harjunmaa et al. reference at column 5, lines 6-15 states:

The processor 22 now calculates the glucose content by subtracting the residual digital signal from the digital signal obtained after the thickness increase and dividing the difference by the amplitude of the signal obtained with only the master lamp in operation. A previously determined proportionality constant is applied to the resultant term. Also, if necessary, a correction term obtained from a personal calibration step described below is also factored in. The result is displayed on the display unit 28.

As is clear from the passages reproduced above, the Harjunmaa et al. reference merely uses conventional calibration and zeroing methods that are automated by the processor 22. The

Harjunmaa et al. reference is utterly silent regarding any type of statistical data analysis, much less regarding the establishing and utilizing of a statistical model in a non-invasive measurement method. That is, there is no mention of statistics in the Harjunmaa et al. reference. The Harjunmaa et al. reference thus fails to disclose each and every element of claims 1 and 12 of the present invention.

When alleging anticipation under 35 U.S.C. §102, the entire claim must be considered. “[A]ll the claim limitations must be taught or suggested by the prior art.” *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). “All the words of a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

In this case, the Harjunmaa et al. reference fails to disclose establishing a “statistical model” and then using the “statistical model,” such as is set forth in independent claims 1 and 12 of the present invention. Thus, applicants respectfully submit that the Harjunmaa et al. reference fails to disclose or even suggest all of the elements of claims 1 and 12. Claims depending upon claims 1 or 12 are patentable for at least the above reasons.

This rejection is overcome and withdrawal thereof is respectfully requested.

C. Request for Entry of This Amendment

Applicants respectfully request that this amendment be entered at least because the amendment: (1) does not remove limitations relied upon by the applicants or by the Examiner as defining the present invention over the applied art; (2) does not add any new claims; and (3) places the claims in condition for allowance and/or in better form for appeal.

D. Conclusion

In view of the foregoing amendments and remarks, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all the claims is hereby requested. The Examiner's rejection has been overcome, and it is believed that a complete and full response has been made to the Office action. The Examiner is accordingly respectfully requested to place the application in condition for allowance and to issue a Notice of Allowability.

If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

Respectfully submitted,

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Date: February 26, 2007


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PETITION AND
DEPOSIT ACCOUNT CHARGE AUTHORIZATION

This document and any concurrently filed papers are believed to be timely. Should any extension of the term be required, applicant hereby petitions the Director for such extension and requests that any applicable petition fee be charged to Deposit Account No. 50-1645.

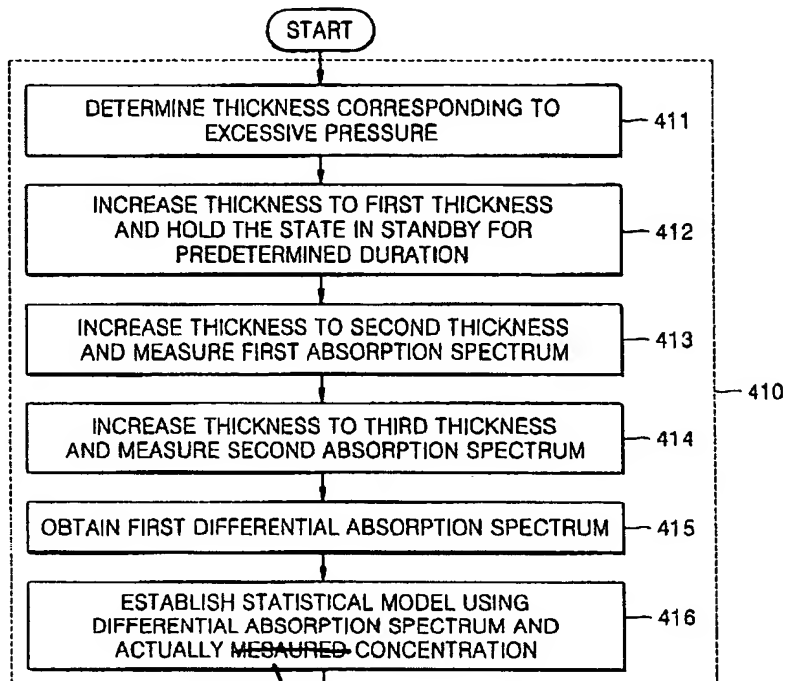
If fee payment is enclosed, this amount is believed to be correct. However, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1645.

Any additional fee(s) necessary to effect the proper and timely filing of the accompanying-papers may also be charged to Deposit Account No. 50-1645.

Appln. No. 10/802,920
Amendment dated February 26, 2007
Reply to Office Action of December 26, 2006
Annotated Sheet



FIG. 4A



A
MEASURED